OVERVIEW OF THE INDIAN HEALTH SERVICE PROGRAM

The Department of Health and Human Services (DHHS), primarily through the Indian Health Service (IHS) of the Public Health Service (PHS), is responsible for providing Federal health services to American Indians and Alaska Natives. Federal Indian health services are based on the laws that the Congress has passed pursuant to its authority to regulate commerce with the Indian Nations as explicitly specified in the Constitution and in other pertinent authorities.

The Indian Health program became a primary responsibility of the PHS under P.L. 83–568, the Transfer Act, on August 5, 1954. This Act provides "that all functions, responsibilities, authorities, and duties . . . relating to the maintenance and operation of hospital and health facilities for Indians, and the conservation of Indian health . . . shall be administered by the Surgeon General of the United States Public Health Service."

The IHS goal is to raise the health status of American Indians and Alaska Natives to the highest possible level. The mission is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum tribal involvement in developing and managing programs to meet their needs. The IHS also acts as the principal Federal health advocate for Indian people by ensuring they have knowledge of and access to all Federal, State, and local health programs they are entitled to as American citizens. It is also the responsibility of the IHS to work with these programs so they will be cognizant of entitlements of Indian people.

The IHS has carried out its responsibilities through developing and operating a health services delivery system designed to provide a broad-spectrum program of preventive, curative, rehabilitative, and environmental services. This system integrates health services delivered directly through IHS facilities and staff on the one hand, with those purchased by IHS through contractual arrangements on the other, taking into account other health resources to which the Indians have access. Tribes are also actively involved in program implementation.

The 1975 Indian Self-Determination Act, P.L. 93–638 as amended, builds upon IHS policy by giving Tribes the option of manning and managing IHS programs in their communities, and provides for funding for improvement of Tribal capability to contract under the Act. The 1976 Indian Health Care Improvement Act, P.L. 94–437, as amended, was intended to elevate the health status of American Indians and Alaska Natives to a level equal to that of the general population through a program of authorized higher resource levels in the IHS budget. Appropriated resources were used to expand health services, build and renovate medical facilities, and step up the construction of safe drinking water and sanitary disposal facilities. It also established programs designed to increase the number of Indian health professionals for Indian needs and to improve health care access for Indian people living in urban areas.

The operation of the IHS health services delivery system is managed through local administrative units called service units. A service unit is the basic health organization for a geographic area served by the IHS program, just as a county or city health department is the basic health organization in a State health department. These are defined areas, usually centered around a single federal reservation in the continental United States, or a population concentration in Alaska.

A few service units cover a number of small reservations; some large reservations are divided into a number of service units. The service units are grouped into larger cultural-demographic-geographic management jurisdictions, which are administered by Area Offices.

PURPOSE AND DESCRIPTION OF TRENDS IN INDIAN HEALTH

The *IHS Trends in Indian Health* attempts to fulfill the basic statistical information requirements of parties that are interested in the IHS, and its relationship with the American Indian and Alaska Native people. The tables and charts contained in the *IHS Trends in Indian Health* describe the IHS program, and the health status of American Indians and Alaska Natives.

Information pertaining to the IHS structure, American Indian and Alaska Native demography, patient care, and community health are included. Historical trends are depicted, and comparisons to other population groups are made, when appropriate. Current regional differences information can be found in the IHS companion publication called *Regional Differences in Indian Health.*

The tables and charts are grouped into six major categories: 1) IHS Structure, 2) Population Statistics, 3) Natality and Infant/Maternal Mortality Statistics, 4) General Mortality Statistics, 5) Patient Care Statistics, and 6) Community Health Statistics. The tables provide detailed data, while the charts show significant relationships. A table and its corresponding chart appear next to each other. However, some charts that are self-explanatory do not have a corresponding table. Also, a few tables have more than one chart associated with them.

SUMMARY OF DATA SHOWN

Indian Health Service Structure

The IHS is comprised of 11 regional administrative units called Area Offices. There is also an Office located in Tucson that is responsible for administering health services delivery. For the present statistical purposes, the Tucson Office is also considered an Area Office, thereby making 12 in total. As of October 1, 1993, the Area Offices consisted of 143 basic administrative units called service units. Of the 143 service units, 70 were operated by Tribes. The IHS operated 41 hospitals, 66 health centers, 4 school health centers, and 44 health stations; while Tribes operated 8 hospitals, 110 health centers, 4 school health centers, 62 health stations, and 171 Alaska Village Clinics. There were 34 Urban Projects ranging from information referral and community health services to comprehensive primary health care services.

As of January 1, 1994, all IHS and Tribally-operated hospitals and eligible IHS-operated health centers were accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Since 1990, 5 of 8 (63 percent) of the Regional Youth Treatment Centers have become accredited by JCAHO. The remaining 3 are preparing for accreditation. IHS proficiency testing rating exceeded the requirements of the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) for all private and public sector laboratories. Overall proficiency rating for IHS laboratories is 97 percent. CLIA '88 requires 80 percent proficiency for most analytes. In FY 1993, there were nearly 10.7 million pharmacy workload units in IHS and Tribal direct facilities. Over 69 percent of these were associated with outpatient care.

Population Statistics

In Fiscal Year 1995, the IHS service population (count of those American Indians and Alaska Natives who are eligible for IHS services) will be approximately 1.37 million. The IHS service population is increasing at a rate of about 2.2 percent per year, excluding the impact of new Tribes. The Indian population residing in the IHS service area is younger than the U.S. All Races population, based on the 1990 Census. For Indians, 34 percent of the population was younger than 15 years, and 6 percent was older than 64 years. For the U.S. All Races population, the corresponding values were 22 and 13 percent respectively. The Indian median age was 24.2 years compared with 32.9 years for U.S. All Races. According to the 1990 Census, Indians have lower incomes than the general population. In 1989, Indians residing in the current Reservation States had a median household income of $19,886 compared with $30,056 for the U.S. All Races population. During this time period, 31.6 percent of Indians lived below the poverty level in contrast to 13.1 percent for the U.S. All Races population.

Natality and Infant/Maternal Mortality Statistics

The birth rate for American Indians and Alaska Natives residing in the IHS service area was 28.1 (rate per 1,000 population) in 1989-1991. It is 68 percent greater than the 1990 birth rate of 16.7 for the U.S. All Races population. The maternal mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 27.7

(rate per 100,000 live births) in 1972-1974 to 9.8 in 1989-1991, a decrease of 65 percent. During 1989-1991, there were only 10 Indian maternal deaths. The infant mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 22.2 (rate per 1,000 live births) in 1972-1974 to 10.2 in 1989-1991, a decrease of 54 percent. The U.S. All Races rate for 1990 was 9.2.

General Mortality Statistics

The leading cause of death for American Indians and Alaska Natives residing in the IHS service area (1989-1991) was "diseases of the heart" followed by "accidents." However, the cause of death rankings differ by sex. For Indian males, the top two causes were also "diseases of the heart" and "accidents." For Indian females, the top two causes were "diseases of the heart" and "malignant neoplasms" (the same as for the total U.S. All Races population in 1990).

In 1989-1991, the Indian (IHS service area) age-adjusted mortality rates for the following causes were considerably higher than those for the U.S. All Races population:

1) tuberculosis - 440 percent greater,
2) alcoholism - 430 percent greater,
3) accidents - 165 percent greater,
4) diabetes mellitus - 154 percent greater,
5) homicide - 50 percent greater,
6) pneumonia and influenza - 46 percent greater, and
7) suicide - 43 percent greater.

Patient Care Statistics

In FY 1992, there were over 93,000 admissions to IHS and Tribal direct and contract general hospitals. The leading cause of hospitalization was "obstetric deliveries and complications of puerperium and pregnancy." The total number of outpatient visits (IHS and Tribal direct and contract facilities) was approximately 5.7 million in FY 1992, an increase of nearly 1,150 percent since FY 1955. The leading cause of outpatient visits in IHS and Tribal direct and contract facilities was "supplemental classification." The "supplemental classification" category includes such clinical impressions as "other preventive health services," "well child care," "physical examination," "tests only" (lab, x-ray, screening), and "hospital, medical, or surgical follow-up." The number of direct and contract dental services provided (IHS, Tribal, and Urban) increased nearly 1,400 percent (from under 0.2 million in FY 1955 to nearly 2.7 million in FY 1993).

Community Health Statistics

For people accepted for treatment into the IHS substance abuse treatment program, most initial contacts are for alcohol addiction only. However, the number of initial contacts involving other drugs has been increasing. Also, the age-adjusted drug-related death rate for Indians residing in the IHS service area increased from 3.4 deaths per 100,000 population in 1979-1981 to 4.3 in 1989-1991. The U.S. All Races rate for 1990 was 3.5.

The IHS Injury Prevention (IP) program has a wide variety of projects in place in all IHS Areas to address this major health problem. Exemplary projects are: child passenger

protection, roadway/roadside hazard identification, safety belt use promotion, deterring drinking and driving, drowning prevention, smoke detector usage, helmet use, and injury prevention campaign. There were nearly 4 times as many injury prevention services provided in FY 1993 compared with FY 1987, 70,619 versus 18,920.

The nutrition and dietetics program made over 381,000 patient/client contacts during FY 1993. The majority of the contacts were in the community (40 percent) and the hospital (38 percent). Over half (56 percent) of the contacts were for clinical nutrition counseling and over one-third (36 percent) were for health promotion. Of the clinical nutrition counseling contacts, the majority were for general nutrition (39 percent) and diabetes (26 percent) nutrition counseling. Ongoing counseling accounted for 57 percent of the encounters, first visits and follow-up accounted for 29 percent of the encounters, and series of classes accounted for 14 percent of the encounters.

There were approximately 250,000 public health nursing visits recorded in the Headquarters reports for FY 1993. This is a large increase in nursing visits from the number reported for FY 1992 (157,000) in last year's edition of this publication. This and other data issues are discussed in the "Sources and Limitations of Data" section that follows. The most frequent program areas dealt with during these visits were morbidity (30 percent of the visits), health promotion/disease prevention (23 percent), and child health (12 percent). Female visits outnumbered male visits by nearly 70 percent. The visits were concentrated in two age groups, children under 5 years of age (22 percent) and adults over the age of 64 (20 percent).

The community health representative (CHR) program made over 4.1 million client contacts in FY 1993. Most of these contacts took place in the community (41 percent), followed by home (26 percent). The two leading detailed activities for CHR contacts in FY 1993 were health education (23 percent) and case management (17 percent).

Since 1960, over 196,000 Indian homes were funded by IHS for the provision of sanitation facilities. These services included water and sewerage facilities, solid waste disposal systems and technical assistance to establish and equip operation and maintenance organizations for new, rehabilitated, and existing homes. Contributions to IHS sanitation facilities projects are received from numerous sources. In FY 1993, Tribes were the largest contributors to these cooperative projects.

The FY 1994 sanitation deficiencies to serve existing American Indian and Alaska Native homes and communities totals $609 million. This amount is to provide first service sanitation facilities, to upgrade existing facilities, to provide solid waste facilities, and to provide assistance to operation and maintenance organizations.

SOURCES AND LIMITATIONS OF DATA

Population Statistics

The IHS service population consists of American Indians and Alaska Natives identified to be eligible for IHS services. IHS service population estimates are based on official U.S. Census Bureau county data. The Census Bureau enumerates those individuals who identify themselves as being American Indian, Eskimo, or Aleut. The IHS service population is estimated by counting those American Indians, Eskimos, and Aleuts (as identified during the Census) who reside in the geographic areas in which IHS has responsibilities ("on or near" reservations, i.e., contract health service delivery areas (CHSDAs)). These people may or may not use IHS services.

The IHS service population estimates, which are shown in this publication, need to be contrasted to the IHS user population estimates that are shown in the Regional Differences in Indian Health publication. IHS user population estimates are based on data from the IHS Patient Registration System. Patients who receive direct or contract health services from IHS or Tribally-operated programs are registered in the Patient Registration System. Those registered Indian patients that had at least one direct or contract inpatient stay or outpatient visit or a direct dental visit during the last 3 years are defined as users. IHS user population figures are used for calculating IHS patient care rates. In contrast, IHS service population figures are used in calculating Indian vital event rates since State birth and death certificates do not provide information on use of IHS services.

IHS service populations between Census years (e.g., 1980 and 1990) are estimated by a smoothing technique in order to show a gradual transition between Census years. This normally results in upward revisions to service population figures projected prior to a Census, since each Census tends to do a better job in enumerating American Indians and Alaska Natives. For example, the American Indian and Alaska Native service population enumerated in 1990 was approximately 8 percent higher than that estimated by IHS for 1989. Therefore, after release of the 1990 enumeration figures, IHS smoothed the service population estimates for 1981-1989. That set of smoothed populations was used in the 1992 edition of this series. Subsequently, the Census Bureau issued revised 1990 Census American Indian and Alaska Native population counts by age and sex for all U.S. counties. They resulted in a 3.9 percent increase for the 1990 IHS service population using these "new" 1990 Census counts compared to the "old" 1990 Census counts. In order to adjust for this 1990 increase, IHS again smoothed the service populations for 1981-1989. This second set of smoothed populations was used in the 1993 edition of the series. The Census Bureau recently issued revised 1980 Census American Indian and Alaska Native population counts by age and sex for all U.S. counties, as was done for 1990. They resulted in a 2.8 percent increase for the 1980 IHS service population using these "new" 1980 Census counts compared with the "old" 1980 Census counts. In order to adjust for this 1980 increase, IHS has for a third time smoothed the service populations for 1981- 1989. This third set of smoothed populations is being used for the first time in this edition of the series.

IHS service populations beyond the latest Census year (1990) are projected through linear regression techniques, using the most current 10 years of Indian birth and death data provided by the National Center for Health Statistics. The natural change (estimated number of births minus estimated number of deaths) is applied to the latest Census enumeration.

The IHS does not currently forecast changes in the service population distribution by age and sex. Rather, appropriate Indian age and sex distributions from Census years are applied to population estimates for intercensal years.

The social and economic data contained in this publication are from the 1990 Census. At the time of this publication, IHS had not yet obtained county-level social and economic data. Therefore, State-level data were used to develop estimates for the IHS service area. That is, Indian data for each of the States where IHS currently has responsibilities (Reservation States) were combined to form an estimate for the entire IHS service area. IHS has made arrangements with the Census Bureau to obtain county-level social and economic data for Indians which will allow IHS to make more precise calculations for the IHS service area.

Vital Event Statistics

American Indian and Alaska Native vital event statistics are derived from data furnished annually to the IHS by the National Center for Health Statistics (NCHS). Vital event statistics for the U.S. population were derived from data appearing in various NCHS publications, as well as from some unpublished data from NCHS. NCHS obtains birth and death records for all U.S. residents from the State departments of health, based on information reported on official State birth and death certificates. The records NCHS provides IHS contain the same basic demographic items as the vital event records maintained by NCHS for all U.S. residents, but with names, addresses, and record identification numbers deleted. It should be noted that Tribal identity is not recorded on these records. Tabulations of vital events for this publication are by place of residence.

The data are subject to the degree of accuracy of reporting by the States to NCHS. NCHS does perform numerous edit checks, and imputes values for non-responses. IHS is using the National Death Index (NDI) maintained by NCHS to determine the extent of the underreporting of Indian race on death certificates. The results of the NDI match should indicate in which States the problems are occurring. IHS will then target the "problem" States for special efforts aimed at the improvement of the reporting of race.

It is already known that there is underreporting of Indian race on State death certificates in the California, Oklahoma, and Portland Areas. In the Regional Differences in Indian Health publication, which shows Area-specific indices, adjustments are made for these Areas. Since this publication only shows IHS-aggregate mortality-based indices (i.e., mortality rates, years of productive life lost, and life expectancy at birth), no adjustments are made. Therefore, these IHS-aggregate mortality-based indices should be considered conservative estimates of the true values. However, the trends are essentially the same with and without adjustments for underreporting of Indian race on death certificates.

The vital event statistics in this publication pertain to only American Indians and Alaska Natives residing in the IHS service area. Editions of this publication before 1992 showed

vital event statistics calculated on a Reservation State basis. Therefore, data were included for Indians residing outside the geographic areas for which IHS has responsibility. This was done in order to show trends starting in FY 1955, to correspond with the inception of the Indian Health Service (IHS) program. Prior to 1972, only total Reservation State data are available.

Now that there are sufficient vital event data available for the IHS service area to show meaningful trends, this publication shows vital event statistics for the IHS service population, starting with data for calendar year 1972. IHS service area data are more indicative of the health status of the Indians that IHS serves. Reservation State vital event rates tend to be lower in value (i.e., lower birth rates, lower mortality rates) than IHS service area rates. However, the vital event tables in this publication will still include the 1955 Reservation State figure as an historical bench mark.

Population-based Indian rates cited in this publication that involve the years 1981-1989 are different than those provided in prior editions in this series. The population estimates for the years 1981-1989 were revised upward by IHS for a third time, as a result of Census Bureau adjustments of 1980 Indian population counts by age and sex. This is explained in the previous discussion pertaining to "population statistics." Increased population bases resulted in the calculation of lower rates for these years.

Normally, each edition of this publication includes only one year of new vital event data. However, this year the timing was such that two years of data (1990 and 1991) could be added.

The Indian population is considerably younger than the U.S. All Races population. Therefore, the mortality rates presented in this publication have been age-adjusted, where applicable, so that appropriate comparisons can be made between these population groups. One exception is the information presented for leading causes of death. In order to determine the leading causes of death for a population group, it is necessary to rank causes of death without any adjustment for age. However, it should be kept in mind that the ranking of causes of death for a population group is affected by its age composition.

The age-adjusted mortality rates presented in this publication were computed by the direct method, that is, by applying the age-specific death rate for a given cause of death to the standard population distributed by age. The total population as enumerated in 1940 was selected as the standard since this is the standard used by NCHS. The rates for the total population and for each race-sex group were adjusted separately, by using the same standard population. The age-adjusted rates were based on 10-year age groups. It is important not to compare age-adjusted death rates with crude rates.

Prior to the 1993 edition of this publication, alcoholism deaths were defined through the use of three ICD-9 cause of death code groups; 291-alcoholic psychoses; 303-alcohol dependence syndrome; and 571.0-571.3-alcoholic liver disease. Various IHS Area statisticians and epidemiologists believed this definition to be incomplete and suggested that it be expanded to include five additional ICD-9 code categories. These "new" categories were used for the first time in the 1993 edition. They include; 305.0-alcohol overdose; 425.5-alcoholic cardiomyopathy; 535.3-alcoholic gastristis; 790.3-elevated blood-alcohol level; and E860.0, E860.1-accidental poisoning by alcohol, not elsewhere

classified. This expanded definition results in about a 25 percent increase in the number of alcoholism deaths identified in comparison with the previous 3-group definition. This expanded definition of alcoholism deaths is now used in all IHS publications, including *Regional Differences in Indian Health.*

There is also a change in this edition regarding the treatment of deaths related to injuries and poisonings. In prior editions, mortality data were shown separately for three of the causes (i.e., accidents, suicide, and homicide) that comprise the injuries and poisonings group. Commencing with this edition, mortality data are now also shown for the composite group, "deaths due to injury and poisoning" (ICD-9 codes E800-E999) and the other causes that comprise this composite group. The same treatment is also now used in the companion document, Regional Differences in Indian Health. The following titles and codes are used for this purpose.

(new) Deaths due to injury and poisoning (E800-E-999)
  Accidental Deaths (E800-E949)
    Motor vehicle accidents (E810-E825)
    Other accidents (E800-E807, E826-E949)
  Suicide (E950-E959)
  Homicide (E960-E978)
(new) Injury undetermined whether accidently or purposely inflicted (E980-E989)
(new) Injury resulting from operations of war (E990-E999)

Patient Care Statistics

Patient care statistics are derived from IHS reporting systems. There are four main patient care reporting systems. The Monthly Inpatient Services Report is a patient census report that is prepared by each IHS hospital. It indicates the number of discharges and days by type of service (e.g., adult, pediatric, obstetric, newborn), and is used for the direct inpatient workload statistics. The Inpatient Care System is the source of IHS hospital inpatient data pertaining to various patient characteristics (age, sex, principal diagnoses, other diagnoses, community of residence, etc.). The data are collected daily, one record per discharge. The Contract Care System is the source of similar contract hospital inpatient data.

The Ambulatory Patient Care System is the source of data pertaining to the number of outpatient visits at IHS facilities by various patient characteristics (age, sex, clinical impression, community of residence, etc.). The data are collected daily, one record per outpatient visit. The Contract Care System is the source of similar contract outpatient visit data.

The data from the automated systems are subject to recording, inputting, and transmitting errors. However, the IHS Division of Program Statistics monitors the reporting systems, and each one has a computer edit. In these ways, errors are kept to an acceptable level.

There are seven other information systems that provide data, presented in this report, pertaining to patient care. The Clinical Laboratory Workload Reporting System is the source of laboratory services data. The Pharmacy System is the source of pharmacy workload data. The PHS Contract Information System and PHS Grants Data System are the sources for Tribal health contract and grant awards information. The Urban Projects Reporting System is the source for workload data for the Urban Projects. The Dental Data

System is the source for dental services data. The Fluoridation Data System, managed by the IHS Dental Services Branch, is the source for fluoridation systems information. The Pharmacy System and Urban Projects Reporting System are manual systems, the others are automated. The systems are monitored by IHS Headquarters personnel.

Community Health Statistics

The source of alcoholism and substance abuse program data is the Chemical Dependency Management Information System (CDMIS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. The CDMIS is currently being implemented as a replacement for the Alcoholism Treatment and Guidance System. During this transition period, the program data are considered incomplete and are therefore not shown in this edition.

The environmental health services data are collected through the Environmental Health Activity Reporting and Facility Data System (EHAR & FDS). This is a microcomputer based system that combines two previously separate data collection systems. The EHAR section of this system is used for the environmental health activity data. The system is decentralized to the Area level providing maximum flexibility for Area environmental health programs. IHS Headquarters personnel monitor the overall quality of the data.

The nutrition and dietetics statistics are derived from the IHS Nutrition and Dietetics Program Activity Reporting System (NDPARS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel.

The public health nursing data are collected through the IHS Community Health Activity Reporting System. This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. The number of public health nursing visits reported in this edition for FY 1993 is considerably higher than the number reported for FY 1992 in last year's edition. There are two main reasons for this. Many public health nursing programs are now utilizing the Patient Care Component (PCC) to collect data. Until recently, it was not possible to merge this PCC-collected data with data collected in the old way. Now, the merging of these data has been at least partially accomplished. Also, the FY 1993 workload counts included some FY 1992 workload that had been delayed. Although the workload reported for FY 1993 is much greater than the FY 1992 figures, the hours reported is less. The current version of the PCC form does not provide for the capture of hours worked, thereby resulting in an underreporting of hours for the program. There are plans to modify the PCC form to remedy this.

For FY 1993, data on the IHS Community Health Representatives (CHR) Program were obtained from the IHS Community Health Representative Information System (CHRIS II). CHRIS II is an automated reporting system that is monitored by IHS CHR Program Headquarters personnel. This system was approved by the Office of Management and Budget on March 31, 1989, and has been operational since July 10, 1989. Data are collected during one week randomly selected from each month. At the start of FY 1992 minor changes in the CHRIS II activity code categories were implemented. Primarily, the service codes were simplified by consolidating administrative functions. This change improved the data quality by greatly reducing the incidence of inaccurately reported persons served when administrative functions were performed by CHRs. In addition, the setting category, "radio/telephone," was added to allow the reporting of CHR services

provided to individuals via these media. Health area category names were changed only to add greater specificity and clarity to the activity reporting system and its data (e.g., “substance abuse” was changed to “alcohol/substance abuse”). Data presented encompass 12 sample reporting weeks from October 1992 through September 1993. These data have been expanded to represent estimated workload for a 12-month period.

The sanitation facilities statistics are derived from IHS reporting systems and financial systems. The IHS reporting systems are the Project Data System and the Sanitation Facility Data System. The Project Data System is the source of detailed data on P.L.86-121 construction projects that provide water supplies and sewerage and waste disposal facilities to American Indians and Alaska Natives. It includes such data as community name, type and number of homes provided with services, the funds allocated and funds expended, completion dates, and accomplishments. Data are collected quarterly. The Sanitation Facility Data System is the source of additional data on sanitation facilities serving American Indians and Alaska Natives. It includes such data as the number of homes served, water rates, fluoridation information, Safe Drinking Water Act Compliance, system reliability, and the unmet need for new or upgraded facilities. Data are collected annually. The systems are monitored by IHS Headquarters personnel.

GLOSSARY

Age Adjustment

The application of the age-specific rates in a population of interest to a standardized age distribution in order to eliminate the differences in observed rates that result from age differences in population composition. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

Area

A defined geographic region for Indian Health Service (IHS) administrative purposes. Each Area Office administers several service units.

Average Daily Patient Load

The average number of patients occupying beds in a hospital on a daily basis. It is calculated by dividing total inpatient days for the year by 365.

Birth Weight

Weight of fetus or infant at time of delivery (recorded in pounds and ounces or grams).

Cause of Death

For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and utilizing the international rules for selecting the underlying cause of death from the reported conditions.

Community Health Representative (CHR)

Indians selected, employed, and supervised by their Tribes and trained by IHS to provide specific health care services at the community level.

Contract Care

Services not available directly from IHS or Tribes that are purchased under contract from community hospitals and practitioners.

Health Center

A facility, physically separated from a hospital, with a full range of ambulatory services, including at least primary care physicians, nursing, pharmacy, laboratory, and x-ray, that are available at least 40 hours a week for outpatient care.

Health Station

A facility, physically separated from a hospital or health center, where primary care physician services are available on a regularly scheduled basis but for less than 40 hours a week.

Infant Mortality

Death of live-born children who have not reached their first birthday expressed as a rate (i.e., the number of infant deaths during a year per 1,000 live births reported in the year).

Life Expectancy

The average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned.

Live Birth

A live birth is the complete expulsion or extraction from its mother of a product of conception irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Low Birth Weight

Birth weight of less than five pounds, eight ounces or 2500 grams.

Neonatal Mortality Rate

The number of deaths under 28 days of age per 1,000 live births.

Occurrence

Place where the event occurred.

Postneonatal Mortality Rate

The number of deaths that occur from 28 days to 365 days after birth per 1,000 live births.

Race

On death certificates, race is usually recorded by the funeral director who may or not query the family members of the decedent. The race of a newborn does not appear on the birth certificate. In this report if either the mother, the father, or both parents were recorded as American Indian or Alaska Native on the birth certificate, the birth is considered as an American Indian or Alaska Native birth.

Reservation State

A State in which IHS has responsibilities for providing health care to American Indians or Alaska Natives.

Residence

Usual place of residence of person to whom event occurred. For births and deaths, residence is defined as the mother's place of residence.

Service Area

The geographic areas in which IHS has responsibilities — "on or near" reservations, i.e., contract health service delivery areas.

Service Population

American Indians and Alaska Natives identified to be eligible for IHS services.

Service Unit

The local administrative unit of IHS.

User Population

American Indians and Alaska Natives eligible for IHS services who have used those services at least once during the last 3-year period.

Years of Productive Life Lost (YPLL)

A mortality indicator that measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths.

SOURCES OF ADDITIONAL INFORMATION

Additional Indian health status information can be obtained from the IHS Division of Program Statistics. Specific responsibilities are as follows:

General Information

Anthony J. D'Angelo, Director, Division of Program Statistics

Demographic Statistics

Aaron O. Handler, Chief, Demographic Statistics Branch
Linda J. Querec, Statistician
JoAnn N. Pappalardo, Computer Systems Analyst
Barbara A. Moore, Statistical Assistant

Patient Care Statistics

Stephen F. Kaufman, Chief, Patient Care Statistics Branch
Marilyn J. Tulsa, Statistician
Bonnie M. Matheson, Computer Assistant

Copies of this and other Division publications may be obtained from Priscilla Sandoval or Monique E. Alston, Division Secretaries.

The Division address and phone number are as follows:

Indian Health Service
Office of Planning, Evaluation, and Legislation
Division of Program Statistics
Twinbrook Metro Plaza
12300 Twinbrook Parkway, Suite 450
Rockville, Maryland 20852

Phone: 301-443-1180
Fax: 301-443-1522